

**Interim Guidance for VDH Health Districts**  
**Regarding Patients Suspected of Having Exposure to Ricin, version 04/18/2013, 9am**  
*Information is preliminary and will be updated as additional information becomes available.*

Background

- Ricin is a poison found naturally in castor beans. If castor beans are chewed and swallowed, the released ricin can cause injury. Ricin can be made from the waste material left over from processing castor beans.
- Ricin can be in the form of a powder, a mist, or a pellet, or it can be dissolved in water or weak acid.

Clinical Description

Initial symptoms of ricin poisoning by inhalation may occur as early as 4 to 8 hours and as late as 24 hours after exposure. Following ingestion, symptoms typically occur in less than 10 hours. Death from ricin poisoning could take place within 36 to 72 hours of exposure, depending on the route of exposure and dose received.

**Inhalation of ricin** can lead to cough and respiratory distress followed by pulmonary edema, respiratory failure, and multi-system organ dysfunction. Weakness and influenza-like symptoms of fever, myalgia, and arthralgia might also be reported.

**Ingestion of ricin** can lead to profuse vomiting and diarrhea, which might be bloody, followed by hypovolemic shock and multi-system organ dysfunction. Weakness and influenza-like symptoms, fever, myalgia, and arthralgia might also be reported.

**Skin and eye exposure:** Contact with ricin powders/products may cause redness and pain of the skin and eyes.

Case Definition

A probable case is a clinically compatible illness in a person for whom a high index of suspicion (credible threat or patient history regarding location and time) exists for ricin exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.

In the current situation, a high index of suspicion would apply to individuals who are employees of federal mail handling facilities in Maryland. These facilities process mail for federal agencies including the White House, Department of Justice, and Congressional offices.

Exclude from consideration as a case if another confirmed diagnosis fully explains signs and symptoms.

Actions

- Hospitals should rapidly report to the local health department: (1) any patients who meet the probable case definition; and (2) any patients who report to the hospital for evaluation and work at one of the federal mail handling facilities in Maryland. Local health departments should then rapidly report the information to the Division of Surveillance and Investigation (DSI).
- The information needed on each case includes the following:
  - Demographic information: name, address, age, race, sex, etc.
  - Employment information: place and address of employment, job duties, compatible illness in co-workers, etc.
  - Exposure history: contact with potential source of exposure
  - Clinical illness: type of symptoms, onset date/time, progression of illness, etc.

Decontamination and Infection Control

Skin decontamination for ricin exposure should be performed if a powder or similar substance is found on the patient, preferably in an area **outside the main emergency department**. Remove, bag, and seal clothes, and

wash body. Potentially exposed persons should be advised to wash their hands thoroughly with soap and water and refrain from any hand to mouth activities.

Person-to-person transmission of ricin does not occur. If patients have been successfully decontaminated, healthcare workers should follow **Standard Precautions** and perform hand hygiene.

#### Patient Management\*

Treatment is primarily supportive, including intravenous fluids, vasopressors, respiratory support, and cardiac monitoring. No specific antidotal therapy exists, and ricin cannot be removed by dialysis. Prophylactic vaccine and immunotherapy are not available. For ricin ingestion, a single dose of activated charcoal should be administered if vomiting has not begun and airway is secure. Gastric lavage may be considered if presentation to the hospital occurs within 1 hour of ingestion. The regional poison control center is available at 1-800-222-1222 for information on individualized care and further management of patients.

#### Specimen Collection from Patients

Laboratory methods to detect potential ricin exposure should be performed in conjunction with epidemiologic evidence of exposure and not for rule-out medical testing. Specimen collection should be coordinated with DSI and DCLS. If required, DCLS can forward specimens to CDC for additional testing.

Consult with DCLS regarding submission of the specimens. Specimens should be submitted under Chain of Custody, when possible. The DCLS chain of custody form may be found at

<http://www.dgs.state.va.us/LinkClick.aspx?fileticket=mtotLNWf9%2f8%3d&tabid=507>.

Collect the following specimen and freeze as soon as possible:

- **URINE** - 100 ml in a sterile screw-capped plastic specimen container provided by DCLS. Please do not overfill. Ensure that the cap is tightly sealed on the container after collection
- If you are using specimen containers NOT provided by DCLS, please provide two unused specimen containers to serve as blanks.

Note: This situation is currently evolving and recommendations for specimen collection could change. If you have any questions or if you suspect exposures to other biological or chemical agents, please contact DCLS at 804-335-4617.

#### Evaluating Citizen Concerns

In general, for citizens who contact the health department and are concerned about a letter or package:

- Determine if letter or package contains a **written threat and/or has a suspicious substance enclosed**.
- If there is no wording or content of concern, reassure the citizen that the letter/package does not sound suspicious and that lab testing is likely not indicated. If the citizen continues to express concern and there is no need for further action, inform citizen that calling the local sheriff or police is an option that they may follow.
- Reassure citizens that the situation appears to be limited to federal mail handling facilities in Prince Georges County, Maryland, that process mail for agencies such as the White House, Department of Justice, and Congress. The letters in question were identified during routine screening and other mail in contact with the letters has been batched and held. At this time, there are no known risks to the general public.
- If the exposure concern appears to be valid:
  - Collect locating information about the caller and information about the letter or package of concern. Consult with the DCLS to determine if the specimen should be submitted for testing.
  - Advise the citizen to put the letter or package in a plastic bag, if possible, and to wash their hands with soap and water and await further instructions.

For additional information, refer to the CDC website: <http://emergency.cdc.gov/agent/ricin/>

\* *Centers for Disease Control and Prevention, Ricin: Treatment Overview for Clinicians*, available at: <http://emergency.cdc.gov/agent/ricin/clinicians/treatment.asp#treatment>